

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claim 1 has been amended to incorporate the subject matter of cancelled Claim 4, and accordingly now recites that the gas permeability of the second gas diffusion layer disposed at the separator side of the cathode is larger than the gas permeability of the first gas diffusion layer disposed at the catalyst layer side of the cathode. For example, as seen in the non-limiting embodiment of Figure 1, the first diffusion layer 10 at the side of the catalyst layer 40 has a higher density than the second diffusion layer 20. Claim 6 has been correspondingly amended and Claim 9 has been cancelled.

Claim 10 has been amended to recite that the second gas diffusion layer has not been pressed to increase a density thereof “to the density of the first gas diffusion layer.” Basis for this can be found in paragraph [0025]. Specifically:

The first gas diffusion layer 10 is produced by compressing the second gas diffusion layer 20 in the thickness direction thereof. Thus the first gas diffusion layer 10 will have a higher density compared to the second gas diffusion layer 20.

The recitation of properties which are inherent in the original description generally does not constitute new matter. MPEP § 2163.06. While the specification does not here explicitly state that the second gas diffusion layer has not been pressed to increase a density thereof to the density of the first gas diffusion layer, those skilled in the art would readily understand that this is inherent in the above description since otherwise the pressed first gas diffusion layer would not have a higher density compared to the (otherwise) identical second gas diffusion layer. The rejection of Claim 10 under 35 U.S.C. § 112, first paragraph, is therefore respectfully traversed.

It is noted that Claim 10 has not been rejected based upon the prior art. Applicant respectfully submits that presently amended Claim 10 defines over Koschany et al for the

reasons presented in the previous response. Specifically, Koschany et al describes thermally pressing *all* of the layers (“for obtaining good adhesion of the impregnated carbon fiber nonwoven fabrics to each other, the desired number of impregnated and sintered carbon fiber nonwoven fabrics can be subject to pressing”; column 4, lines 30-33) and would not produce a second gas diffusion layer which has not been pressed to increase a density thereof to the density of the pressed first gas diffusion layer.

Claim 4, whose subject matter has been incorporated into Claims 1 and 6, was rejected under 35 U.S.C. § 103 as being obvious in view of U.S. patent 6,605,381 (Rosenmayer). The examiner there alleged that this reference is silent as to the relative positions of the less gas permeable (first) and more gas permeable (second) gas diffusion layers therein. However, Rosenmayer is not silent as to this point, *but explicitly discloses the opposite*. The layer 4 which contacts the catalyst bearing electrode 5 has a higher pore volume than the layer 3 (col. 3, lines 58-64); layer 4 is thus a more gas permeable (second) gas diffusion layer. This is *opposite* to the recitations of rejected Claim 4 (and currently amended Claims 1 and 6) that the less gas permeable first gas diffusion layer is “disposed at a catalyst layer side of the cathode” and the more gas permeable “second gas diffusion layer is disposed at a separator side of the cathode.” Moreover, reversing the layers 3 and 4 of Rosenmayer would not have been obvious to those skilled in the art since this would have been contrary to the disclosed goal of distributing the reaction gas in the intended manner (col. 3, lines 64-67). The claims therefore define over this reference.

The remaining rejections are believed to be moot in view of the amendments to Claims 1 and 6.

- Application No. 09/990,378
- Reply to Office Action of August 5, 2004.

Applicant therefore believes that the present application is in a condition for allowance and respectfully solicits an early notice of allowability.

Respectfully submitted,

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